RECOMMENDED LUBRICANTS

FOR

MARION EXCAVATORS & CRANES

MARION
POWER SHOVEL COMPANY
MARION, OHIO, U.S.A.

OIL AND GREASE FOR "MARION" EQUIPMENT

INDEX OF MANUFACTURERS

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1	AMALIE DIVISION, L. SONNEBORN SONS, INC.
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3	CITIES SERVICE OIL CO.
4	CONTINENTAL OIL CO.
5	D-A LUBRICANT COMPANY, INC.
6	FISKE BROTHERS REFINING CO.
7	GULF REFINING CO.
8	THE PENNZOIL CO.
9	PENOLA INC. (AFFILIATED WITH STANDARD OIL CO. OF N.J.)
10	THE PURE OIL CO.
11	SHELL OIL CO.
12	SINCLAIR REFINING CO.
13	SOCONY-VACUUM OIL CO.
14	STANDARD OIL COMPANY OF CALIFORNIA CALIFORNIA COMMERCIAL CO., INC.
15	STANDARD OIL CO. (INDIANA)
16	STANDARD OIL CO. OF NEW JERSEY (AND AFFILIATED COMPANIES) STANDARD OIL CO. OF PENNSYLVANIA STANDARD OIL CO. OF LOUISIANA COLONIAL BEACON OIL CO. ESSO MARKETERS
17	THE STANDARD OIL CO. (OHIO)
18	SUN OIL COMPANY
19	THE TEXAS COMPANY THE INDIAN REFINING CO.
20	TIDE WATER ASSOCIATED OIL CO.
21	THE WHITMORE MANUFACTURING CO.

NOTE: THE INFORMATION GIVEN IN THIS BULLETIN IS BASED ON THE RECOMMENDATIONS OF THE VARIOUS OIL COMPANIES LISTED ABOVE AND IS INTENDED AS A GENERAL GUIDE ONLY. WHEN IT IS NECESSARY TO OPERATE UNDER UNUSUAL CONDITIONS SUCH AS EXTREME HEAT, EXCESSIVE DUST, ETC. SPECIAL LUBRICANTS MAY BE REQUIRED AND WE WOULD SUGGEST THAT YOU CONSULT YOUR SUPPLIER.

5-1-44

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

AMALIE DIVISION, L. SONNEBORN SONS, INC.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	SAE 20	SAE 20W
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	MULTI SERVICE #2	MULTI SERVICE #1
BALL OR ROLLER - OIL LUB.	SAE 20	SAE 20W
SLEEVE - GREASE LUBRICATED	MULTI SERVICE #2	MULTI SERVICE #1
SLEEVE - OIL LUBRICATED	SAE 20	SAE 20W
CHAINS - DRIVING		
ROLLER - OPEN	GEAR SHIELD LUBE #1	TRANS GEAR 140
ROLLER - ENCLOSED	SAE 20	SAE 10W
SILENT - PARTLY ENCLOSED	SAE 20	SAE 10W
SILENT - ENCLOSED	SAE 20	SAE 10W
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	TRANS GEAR 140	TRANS GEAR 140
"FALK" OR SPRING TYPE - GREASE LUB.	MULTI SERVICE #2	MULTI SERVICE #2
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB	MULTI SERVICE #2	MULTI SERVICE #1
BALL OR ROLLER - OIL LUB.	SAE 20	SAE 10W
SLEEVE - RING, DRIP OR WICK OIL	SAE 20	SAE 10W
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	EP 140	EP 90
ENCLOSED, OIL BATH, OTHER DUTY	EP 140	EP 90
OPEN OR PARTLY ENCLOSED	GEAR SHIELD LUBE #2	GEAR SHIELD LUBE #1
PROPEL - ENCLOSED - OIL BATH	GEAR SHIELD LUBE #1	TRANS GEAR 140
WORM - OPEN	GEAR SHIELD LUBE #1	TRANS GEAR 140
WORM - ENCLOSED - OIL BATH	EP 140	EP 90
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	NO PRODUCT AVAILABLE	NO PRODUCT AVAILABLE
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	SAE 20	SAE 10
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	GEAR SHIELD LUBE #1	GEAR SHIELD LUBE #0
NORMAL CONDITIONS	GEAR SHIELD LUBE #1	GEAR SHIELD LUBE #0
ROLLERS -		
CRAWLER ROLLERS	MULTI SERVICE #2	MULTI SERVICE #1
ROTATING CIRCLE ROLLERS	MULTI SERVICE #2	MULTI SERVICE #1
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	GEAR SHIELD LUBE #1	GEAR SHIELD LUBE #1
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	GEAR SHIELD LUBE #1	GEAR SHIELD LUBE #0
NORMAL CONDITIONS	GEAR SHIELD LUBE #1	GEAR SHIELD LUBE #0

* "G.E. GREASE FOR BALL BEARING MOTORS" ALSO RECOMMENDED FOR G. E. CO'S. MOTORS AND GENERATORS.

** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

THE ATLANTIC REFINING CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	ARIO COMPRESSOR OIL	ARIO COMPRESSOR OIL
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	ATLANTIC LUBRICANT #64	ATLANTIC LUBRICANT #64
BALL OR ROLLER - OIL LUB.	MATCHLESS OIL "F"	MATCHLESS OIL "F"
SLEEVE - GREASE LUBRICATED	ATLANTIC LUBRICANT #102	ATLANTIC LUBRICANT #102
SLEEVE - OIL LUBRICATED	MATCHLESS OIL "H"	MATCHLESS OIL "H"
CHAINS - DRIVING		
ROLLER - OPEN	EBONY OIL "H"	WINTER BLACK OIL
ROLLER - ENCLOSED	MATCHLESS OIL "H"	MATCHLESS OIL "H"
SILENT - PARTLY ENCLOSED	MATCHLESS OIL "H"	MATCHLESS OIL "H"
SILENT - ENCLOSED	MATCHLESS OIL "H"	MATCHLESS OIL "H"
COUPLINGS		
"FAST" OR GEAR TYPE - OIL LUB.	ATL. HFS LUBG. OIL #40	ATL. HFS LUBG. OIL #40
"FALK" OR SPRING TYPE - GREASE LUB.	ATLANTIC LUBRICANT #112	ATLANTIC LUBRICANT #112
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	ATLANTIC LUBRICANT #64	ATLANTIC LUBRICANT #64
BALL OR ROLLER - OIL LUB.	MATCHLESS OIL "F"	MATCHLESS OIL "F"
SLEEVE - RING, DRIP OR WICK OIL	MATCHLESS OIL "F"	MATCHLESS OIL "F"
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO's. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO's. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO's. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	ATL. HFS LUBG. OIL #40	ATL. HFS LUBG. OIL #18
ENCLOSED, OIL BATH, OTHER DUTY	ATL. HFS LUBG. OIL #18	ATL. HFS LUBG. OIL #13
OPEN OR PARTLY ENCLOSED	ATLANTIC LUBRICANT #27	ATLANTIC LUBRICANT #27 (W)
PROPEL - ENCLOSED - OIL BATH	ATL. HFS LUBG. OIL #40	ATL. HFS LUBG. OIL #40
WORM - OPEN	ATLANTIC LUBRICANT #27	ATLANTIC LUBRICANT #27 (W)
WORM - ENCLOSED - OIL BATH	CAPITOL CYLINDER OIL	CAPITOL CYLINDER OIL
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	POLAR OIL LIGHT	POLAR OIL LIGHT
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	MATCHLESS OIL "F"	MATCHLESS OIL "F"
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	ATLANTIC LUBRICANT #27	ATLANTIC LUBRICANT #27 (W)
NORMAL CONDITIONS	ATLANTIC LUBRICANT #27	ATLANTIC LUBRICANT #27 (W)
ROLLERS -		
CRAWLER ROLLERS	ATLANTIC LUBRICANT #23	ATLANTIC LUBRICANT #23
ROTATING CIRCLE ROLLERS	ATLANTIC LUBRICANT #23	ATLANTIC LUBRICANT #23
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	ATLANTIC LUBRICANT #23	ATLANTIC LUBRICANT #23
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	SUMMER BLACK OIL	WINTER BLACK OIL
NORMAL CONDITIONS	No. 2 LIQUID CABLE COATING	No. 2 LIQUID CABLE COATING

* "G.E. GREASE FOR BALL BEARING MOTORS" ALSO RECOMMENDED FOR G. E. CO's. MOTORS AND GENERATORS.

** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO's. RECOMMENDATIONS.

(W) WARM SLIGHTLY IN VERY COLD WEATHER BUT DO NOT MELT.

5-1-44

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

CITIES SERVICE OIL CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	PACEMAKER #3	PACEMAKER #3
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	TROJAN P-2	TROJAN P-1
BALL OR ROLLER - OIL LUB.	PACEMAKER #3	PACEMAKER #3
SLEEVE - GREASE LUBRICATED	TROJAN P-2	TROJAN P-1
SLEEVE - OIL LUBRICATED	PACEMAKER #3	PACEMAKER #3
CHAINS - DRIVING		
ROLLER - OPEN	PACEMAKER #7	PACEMAKER #7
ROLLER - ENCLOSED	PACEMAKER #3	PACEMAKER #3
SILENT - PARTLY ENCLOSED	PACEMAKER #7	PACEMAKER #7
SILENT - ENCLOSED	PACEMAKER #3	PACEMAKER #3
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	PACEMAKER #7	PACEMAKER #7
"FALK" OR SPRING TYPE - GREASE LUB.	TROJAN A-2	TROJAN A-2
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	TROJAN M-2	TROJAN M-2
BALL OR ROLLER - OIL LUB.	PACEMAKER #3	PACEMAKER #3
SLEEVE - RING, DRIP OR WICK OIL	PACEMAKER #3	PACEMAKER #3
OIL CIRCUIT BREAKERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
SLIP RING CASES	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	PACEMAKER #7	PACEMAKER #7
ENCLOSED, OIL BATH, OTHER DUTY	PACEMAKER #7	PACEMAKER #7
OPEN OR PARTLY ENCLOSED	CISCO COMP. #1 (H)	CISCO COMP #0 (H)
PROPEL - ENCLOSED - OIL BATH	PACEMAKER #7	PACEMAKER #7
WORM - OPEN	TROJAN A-2	TROJAN A-1
WORM - ENCLOSED - OIL BATH	OPTIMUS #11	OPTIMUS #6
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	NORTH STAR OIL No. 2	NORTH STAR OIL No. 2
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO. MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	PACEMAKER #3	PACEMAKER #3
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	CISCO COMP. #1 (H)	CISCO COMP. #0 (H)
NORMAL CONDITIONS	CISCO COMP. #1 (H)	CISCO COMP. #0 (H)
ROLLERS -		
CRAWLER ROLLERS	TROJAN P-2	TROJAN P-1
ROTATING CIRCLE ROLLERS	TROJAN P-2	TROJAN P-1
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	CISCO COMP. #1 (H)	CISCO COMP. #0 (H)
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	RAVEN #7	RAVEN #3
NORMAL CONDITIONS	CISCO COMP. #1 (H)	CISCO COMP. #0 (H)

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(H) TO BE APPLIED HOT

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

CONTINENTAL OIL CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	DECTOL MEDIUM	DECTOL MEDIUM
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	RACELUBE	RACELUBE
BALL OR ROLLER - OIL LUB.	REDIND MEDIUM - HEAVY	REDIND MEDIUM
SLEEVE - GREASE LUBRICATED	PRESSURE LUBR. MED.	PRESSURE LUBR. LIGHT
SLEEVE - OIL LUBRICATED	REDIND MEDIUM - HEAVY	REDIND MEDIUM
CHAINS - DRIVING		
ROLLER - OPEN	INCA CYLINDER OIL	INCA CYLINDER OIL
ROLLER - ENCLOSED	REDIND MEDIUM - HEAVY	REDIND MEDIUM
SILENT - PARTLY ENCLOSED	INCA CYLINDER OIL	REDIND MEDIUM - HEAVY
SILENT - ENCLOSED	REDIND MEDIUM - HEAVY	REDIND MEDIUM
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	INCA CYLINDER OIL	INCA CYLINDER OIL
"FALK" OR SPRING TYPE - GREASE LUB.	RAMIL NO. 1	RAMIL NO. 1
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	RACELUBE	RACELUBE
BALL OR ROLLER - OIL LUB.	REDIND MEDIUM	ICE MACHINE OIL MEDIUM
SLEEVE - RING, DRIP OR WICK OIL	REDIND MEDIUM	ICE MACHINE OIL MEDIUM
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	INCA CYLINDER OIL	INCA CYLINDER OIL
ENCLOSED, OIL BATH, OTHER DUTY	INCA CYLINDER OIL	REDIND MEDIUM - HEAVY
OPEN OR PARTLY ENCLOSED	COGLUBE NO. 7	COGLUBE NO. 5
PROPEL - ENCLOSED - OIL BATH	INCA CYLINDER OIL	INCA CYLINDER OIL
WORM - OPEN	COGLUBE NO. 7	COGLUBE NO. 5
WORM - ENCLOSED - OIL BATH	INCA CYLINDER OIL	INCA CYLINDER OIL
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	ICE MACHINE OIL MEDIUM	ICE MACHINE OIL MEDIUM
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	DECTOL MEDIUM	DECTOL MEDIUM
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	COGLUBE NO. 7	COGLUBE NO. 5
NORMAL CONDITIONS	COGLUBE NO. 7	COGLUBE NO. 5
ROLLERS -		
CRAWLER ROLLERS	PRESSURE LUB. MED.	PRESSURE LUB. LIGHT
ROTATING CIRCLE ROLLERS	PRESSURE LUB. MED.	PRESSURE LUB. LIGHT
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	COGLUBE NO. 7	COGLUBE NO. 5
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	INCA CYLINDER OIL OR DRY	REDIND MEDIUM OR DRY
NORMAL CONDITIONS	COGLUBE NO. 7	COGLUBE NO. 5

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

D-A LUBRICANT COMPANY, INC.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	MO 40-30	MO 20W
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	HMP	HMP
BALL OR ROLLER - OIL LUB.	No. 000	MO 20W
SLEEVE - GREASE LUBRICATED	HMP	HMP
SLEEVE - OIL LUBRICATED	No. 000	MO 20W
CHAINS - DRIVING		
ROLLER - OPEN	No. 0 OR OG (H)	No. 00 OR OG (H)
ROLLER - ENCLOSED	No. 0-00	No. 000
SILENT - PARTLY ENCLOSED	No. 0-00	No. 000
SILENT ENCLOSED	No. 0-00	No. 000
COUPLINGS		
"FAST" OR GEAR TYPE - OIL LUB.	No. 0-00	No. 000
"FALK" OR SPRING TYPE - GREASE LUB.	HMP	HMP
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	HMP	HMP
BALL OR ROLLER - OIL LUB.	MO 30	MO 20W
SLEEVE - RING, DRIP OR WICK OIL	MO 30	MO 20W
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	EP 250	EP 140
ENCLOSED, OIL BATH, OTHER DUTY	No. 00	No. 00
OPEN OR PARTLY ENCLOSED	OG (H)	OG (H)
PROPEL - ENCLOSED - OIL BATH	No. 0-00	No. 000
WORM - OPEN	OG	OG
WORM - ENCLOSED - OIL BATH	EP 250	EP 140
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	INFORMATION ON REQUEST	INFORMATION ON REQUEST
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL Co., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	MO 10W	MO 10W
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	No. 0	No. 00
NORMAL CONDITIONS	OG	OG
ROLLERS -		
CRAWLER ROLLERS	No. 3-2	No. 1 OR GG-WF
ROTATING CIRCLE ROLLERS	No. 3-2	No. 1 OR GG-WF
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	OG (H)	OG (H)
VACUUM POWER CYLINDERS -	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	OG (H)	OG (H)
NORMAL CONDITIONS	OG (H)	OG (H)

* "G.E. GREASE FOR BALL BEARING MOTORS" ALSO RECOMMENDED FOR G.E. Co's. MOTORS AND GENERATORS.

** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL Co.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(H) TO BE APPLIED HOT.

(M) ITEMS MARKED THUS ARE M. S. S. Co's. RECOMMENDATIONS.

DO DENOTES D-A DIESEL OIL MO DENOTES D-A MOTOR OIL OG DENOTES D-A OPEN GEAR LUBRICANT

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

FISKE BROTHERS REFINING CO.

LUBRIPLATE DIVISION

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	HIGH GRADE PENNA OIL EQUIVALENT TO S.A.E. # 40	
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PART BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	LUBRIPLATE No. 707	LUBRIPLATE No. 707
BALL OR ROLLER - OIL LUB.	LUBRIPLATE No. 2	LUBRIPLATE No. 2
SLEEVE - GREASE LUBRICATED	LUBRIPLATE No. 707	LUBRIPLATE No. 707
SLEEVE - OIL LUBRICATED	LUBRIPLATE No. 2	LUBRIPLATE No. 2
CHAINS - DRIVING		
ROLLER - OPEN	LUBRIPLATE No. 100	LUBRIPLATE No. 100
ROLLER - ENCLOSED	LUBRIPLATE No. 100	LUBRIPLATE No. 100
SILENT - PARTLY ENCLOSED	LUBRIPLATE No. 100	LUBRIPLATE No. 100
SILENT - ENCLOSED	LUBRIPLATE No. 100	LUBRIPLATE No. 100
COUPLINGS		
"FAST" OR GEAR TYPE - OIL LUB.	LUBRIPLATE No. 100	LUBRIPLATE No. 100
"FALK" OR SPRING TYPE - GREASE LUB.	LUBRIPLATE No. 70	LUBRIPLATE No. 70
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	LUBRIPLATE No. 707	LUBRIPLATE No. 707
BALL OR ROLLER - OIL LUB.	LUBRIPLATE No. 2	LUBRIPLATE No. 2
SLEEVE - RING, DRIP OR WICK OIL	LUBRIPLATE No. 2	LUBRIPLATE No. 2
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	LUBRIPLATE No. 20	LUBRIPLATE No. 20
ENCLOSED, OIL BATH, OTHER DUTY	LUBRIPLATE No. 100	LUBRIPLATE No. 100
OPEN OR PARTLY ENCLOSED	LUBRIPLATE No. 725 (B)	LUBRIPLATE No. 725 (B)
PROPEL - ENCLOSED - OIL BATH	LUBRIPLATE No. 25	LUBRIPLATE No. 25
WORM - OPEN	LUBRIPLATE No. 25	LUBRIPLATE No. 25
WORM - ENCLOSED - OIL BATH	LUBRIPLATE No. 725	LUBRIPLATE No. 725
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	NO PRODUCT AVAILABLE	NO PRODUCT AVAILABLE
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL Co., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	LUBRIPLATE No. 2	LUBRIPLATE No. 2
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	LUBRIPLATE No. 725 (B)	LUBRIPLATE No. 725 (B)
NORMAL CONDITIONS	LUBRIPLATE No. 725 (B)	LUBRIPLATE No. 725 (B)
ROLLERS -		
CRAWLER ROLLERS	LUBRIPLATE No. 707	LUBRIPLATE No. 707
ROTATING CIRCLE ROLLERS	LUBRIPLATE No. 707	LUBRIPLATE No. 707
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	LUBRIPLATE No. 130-AA (B)	LUBRIPLATE No. 130-AA (B)
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	LUBRIPLATE No. 130-AA (B)	LUBRIPLATE No. 130-AA (B)
NORMAL CONDITIONS	LUBRIPLATE No. 130-AA (B)	LUBRIPLATE No. 130-AA (B)

* "G.E. GREASE FOR BALL BEARING MOTORS" ALSO RECOMMENDED FOR G. E. Co's. MOTORS AND GENERATORS.

** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL Co.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(B) BRUSH ON.

(M) ITEMS MARKED THUS ARE M. S. S. Co's. RECOMMENDATIONS.

5-1-44

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

GULF REFINING CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	GULF HARMONY OIL C	GULF HARMONY OIL C
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	GULF H.M. GREASE	GULF H.M. GREASE
BALL OR ROLLER - OIL LUB	GULF PARVIS OIL M	GULF PARVIS OIL M
SLEEVE - GREASE LUBRICATED	GULF HIGH PRESSURE GREASE	GULF HIGH PRESSURE GREASE
SLEEVE - OIL LUBRICATED	GULF PARVIS OIL M	GULF PARVIS OIL M
CHAINS - DRIVING		
ROLLER - OPEN	TUBEDRA OIL	TUBEDRA OIL
ROLLER - ENCLOSED	GULF PARVIS OIL M	GULF PARVIS OIL M
SILENT - PARTLY ENCLOSED	TUBEDRA OIL	TUBEDRA OIL
SILENT - ENCLOSED	GULF PARVIS OIL M	GULF PARVIS OIL M
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	GULF CRYSTAL CYLINDER OIL A	GULF CRYSTAL CYLINDER OIL A
"FALK" OR SPRING TYPE - GREASE LUB.	GULF H.M. GREASE	GULF H.M. GREASE
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT-		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	GULF H.M. GREASE	GULF H.M. GREASE
BALL OR ROLLER - OIL LUB.	GULF HARMONY OIL C	GULF HARMONY OIL C
SLEEVE - RING, DRIP OR WICK OIL	GULF HARMONY OIL C	GULF HARMONY OIL C
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	GULF CRYSTAL CYLINDER OIL C	GULF CRYSTAL CYLINDER OIL C
ENCLOSED, OIL BATH, OTHER DUTY	GULF CRYSTAL CYLINDER OIL C	GULF CRYSTAL CYLINDER OIL C
OPEN OR PARTLY ENCLOSED	GULF LUBCOTE #1	GULF LUBCOTE #1
PROPEL - ENCLOSED - OIL BATH	TUBEDRA OIL	TUBEDRA OIL
WORM - OPEN	GULF LUBCOTE #1	GULF LUBCOTE #1
WORM - ENCLOSED - OIL BATH	GULF CRYSTAL CYLINDER OIL C	GULF CRYSTAL CYLINDER OIL C
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	GULF MECHANISM OIL D	GULF MECHANISM OIL D
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	JOURNAL OIL A	JOURNAL OIL A
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	GULF LUBCOTE #1	GULF LUBCOTE #1
NORMAL CONDITIONS	GULF LUBCOTE #1	GULF LUBCOTE #1
ROLLERS -		
CRAWLER ROLLERS	GULF HIGH PRESSURE GREASE	GULF HIGH PRESSURE GREASE
ROTATING CIRCLE ROLLERS	GULF HIGH PRESSURE GREASE	GULF HIGH PRESSURE GREASE
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	GULF LUBCOTE #1	GULF LUBCOTE #1
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	GULF LUBCOTE #1	GULF LUBCOTE #1
NORMAL CONDITIONS	GULF LUBCOTE #1	GULF LUBCOTE #1

* "G.E. GREASE FOR BALL BEARING MOTORS" ALSO RECOMMENDED FOR G. E. CO'S. MOTORS AND GENERATORS.

** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

THE PENNZOIL CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	PENNBELL HEAVY MEDIUM	PENNBELL MEDIUM
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	PENNZLUBE HI-DUTY LUB. A	PENNZLUBE HI-DUTY LUB. AA
BALL OR ROLLER - OIL LUB.	PENNBELL HEAVY MEDIUM	PENNBELL MEDIUM
SLEEVE - GREASE LUBRICATED	PENNZLUBE HI-DUTY LUB. A	PENNZLUBE HI-DUTY LUB. AA
SLEEVE - OIL LUBRICATED	PENNBELL HEAVY MEDIUM	PENNBELL MEDIUM
CHAINS - DRIVING		
ROLLER - OPEN	MAXOL J. & G. OIL 3-H	MAXOL J. & G. OIL M
ROLLER - ENCLOSED	MAXOL J. & G. OIL L-M	MAXOL J. & G. OIL L
SILENT - PARTLY ENCLOSED	MAXOL J. & G. OIL 3-H	MAXOL J. & G. OIL M
SILENT - ENCLOSED	MAXOL J. & G. OIL L-M	MAXOL J. & G. OIL L
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	MAXOL J. & G. OIL M	MAXOL J. & G. OIL L-M
"FALK" OR SPRING TYPE - GREASE LUB.	THORZAL LUB. A	THORZAL LUB. A
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	THORZAL LUBRICANT A	THORZAL LUBRICANT A
BALL OR ROLLER - OIL LUB.	PENNBELL HEAVY MEDIUM	PENNBELL MEDIUM
SLEEVE - RING, DRIP OR WICK OIL	PENNBELL HEAVY MEDIUM	PENNBELL MEDIUM
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	PENNZOIL GEAR LUB. #4171	PENNZOIL GEAR LUB. #4091
ENCLOSED, OIL BATH, OTHER DUTY	MAXOL J. & G. OIL M	MAXOL J. & G. OIL L-M
OPEN OR PARTLY ENCLOSED	PENN. AMER. GEAR SHIELD #1	PENN. AMER. GEAR SHIELD #0
PROPEL - ENCLOSED - OIL BATH	MAXOL J. & G. OIL 3-H	MAXOL J. & G. OIL M
WORM - OPEN	PENN. AMER. GEAR SHIELD #0	PENN. AMER. GEAR SHIELD #00
WORM - ENCLOSED - OIL BATH	MAXOL J. & G. OIL 3-H	MAXOL J. & G. OIL M
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	ZOIL ICE MACHINE LIGHT	ZOIL ICE MACHINE LIGHT
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	PENNBELL MEDIUM	PENNBELL LIGHT
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	THORZAL LUBRICANT A	THORZAL LUBRICANT A
NORMAL CONDITIONS	PENN. AMER. GEAR SHIELD #0	PENN. AMER. GEAR SHIELD #00
ROLLERS -		
CRAWLER ROLLERS	THORZAL LUBRICANT A	THORZAL LUBRICANT A
ROTATING CIRCLE ROLLERS	THORZAL LUBRICANT A	THORZAL LUBRICANT A
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	PENN. AMER. GEAR SHIELD # 0	PENN. AMER. GEAR SHIELD #00
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	PENN. AMER. GEAR SHIELD #0	PENN. AMER. GEAR SHIELD #00
NORMAL CONDITIONS	PENN. AMER. GEAR SHIELD #0	PENN. AMER. GEAR SHIELD #00

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

5-1-44

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

PENOLA INC. (AFFILIATED WITH STANDARD OIL CO. OF N.J.)

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	TERESSTIC 52	TERESSTIC 52
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	ANDOK LUB. M-275	ANDOK LUB. M-275
BALL OR ROLLER - OIL LUB.	TERESSTIC 52	TERESSTIC 43
SLEEVE - GREASE LUBRICATED	CASTROLEUM 1	CASTROLEUM 1
SLEEVE - OIL LUBRICATED	ROXTONE 60	ROXTONE 50
CHAINS - DRIVING		
ROLLER - OPEN	ROXTONE 60	ROXTONE 50
ROLLER - ENCLOSED	TERESSTIC 65	TERESSTIC 65
SILENT - PARTLY ENCLOSED	TERESSTIC 65	TERESSTIC 65
SILENT - ENCLOSED	TERESSTIC 65	TERESSTIC 65
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	CYLESSTIC T-140	CYLESSTIC T-140
"FALK" OR SPRING TYPE - GREASE LUB.	3750 LUBRICANT	3750 LUBRICANT
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	ANDOK LUBRICANT M-275	ANDOK LUBRICANT M-275
BALL OR ROLLER - OIL LUB.	TERESSTIC 52	TERESSTIC 43
SLEEVE - RING, DRIP OR WICK OIL	TERESSTIC 52	TERESSTIC 43
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	CELESSTIC T-140	PENOLA COMPOUND 3
ENCLOSED, OIL BATH, OTHER DUTY	TERESSTIC 65	TERESSTIC 65
OPEN OR PARTLY ENCLOSED	SURETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)
PROPEL - ENCLOSED - OIL BATH	CYLESSTIC T-140	PENOLA COMPOUND 3
WORM - OPEN	SURETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)
WORM - ENCLOSED - OIL BATH	CYLESSTIC T-140	PENOLA COMPOUND 3
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	UNIVIS 47	UNIVIS 47
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	TERESSTIC 52	TERESSTIC 43
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	TRADOX LUBRICANT 5	TRADOX LUBRICANT 5
NORMAL CONDITIONS	SURETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)
ROLLERS -		
CRAWLER ROLLERS	CASTROLEUM 1	CASTROLEUM 1
ROTATING CIRCLE ROLLERS	CASTROLEUM 1	CASTROLEUM 1
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	ROXTONE 60	ROXTONE 50
VACUUM POWER CYLINDERS -	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	ROXTONE 60	ROXTONE 50
NORMAL CONDITIONS	SURETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

(H) TO BE APPLIED HOT.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

THE PURE OIL CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	PUROPALE HEAVY MEDIUM	KLONDYKE HEAVY MEDIUM
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	POCO BEARING GREASE #2	POCO BEARING GREASE #1
BALL OR ROLLER - OIL LUB.	PUROPALE HEAVY MEDIUM	KLONDYKE HEAVY MEDIUM
SLEEVE - GREASE LUBRICATED	POCO BEARING GREASE #2	POCO BEARING GREASE #2
SLEEVE - OIL LUBRICATED	POCO JOURNAL HEAVY MEDIUM	POCO JOURNAL HEAVY MEDIUM
CHAINS - DRIVING		
ROLLER - OPEN	POCO JOURNAL HEAVY	POCO JOURNAL HEAVY MEDIUM
ROLLER - ENCLOSED	POCO JOURNAL HEAVY MEDIUM	POCO JOURNAL HEAVY MEDIUM
SILENT - PARTLY ENCLOSED	PUROLA CYLINDER OIL	POCO JOURNAL HEAVY
SILENT - ENCLOSED	POCO JOURNAL HEAVY MEDIUM	POCO JOURNAL HEAVY MEDIUM
COUPLINGS		
"FAST" OR GEAR TYPE - OIL LUB.	PUROLA CYLINDER OIL	PUROLA CYLINDER OIL
"FALK" OR SPRING TYPE - GREASE LUB.	POCO GRAPHITE GREASE #3	POCO GRAPHITE GREASE #3
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	POCO BEARING GREASE #2	POCO BEARING GREASE #1
BALL OR ROLLER - OIL LUB.	PUROPALE HEAVY MEDIUM	KLONDYKE HEAVY MEDIUM
SLEEVE - RING, DRIP OR WICK OIL	POCO JOURNAL HEAVY MEDIUM	POCO JOURNAL HEAVY MEDIUM
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	POCO PURELUBE EE-90 SAE	POCO PURELUBE "EE"
ENCLOSED, OIL BATH, OTHER DUTY	PURODIESEL #100	PURODIESEL #0
OPEN OR PARTLY ENCLOSED	POCO COMPOUND #200 (H)	POCO COMPOUND #100 (H)
PROPEL - ENCLOSED - OIL BATH	PUROLA CYLINDER OIL	POCO JOURNAL EXTRA HEAVY
WORM - OPEN	POCO COMPOUND #200 (H)	POCO COMPOUND #100 (H)
WORM - ENCLOSED - OIL BATH	POCO PURELUBE "BB"	POCO PURELUBE "BB"
HYDRAULIC EQUALIZING JACKS		
AUTOMATICALLY OPERATED	KLONDYKE LIGHT MEDIUM	KLONDYKE LIGHT MEDIUM
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	KLONDYKE MEDIUM	KLONDYKE MEDIUM
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	POCO COMPOUND #10 (H)	POCO COMPOUND #10 (H)
NORMAL CONDITIONS	POCO COMPOUND #200 (H)	POCO COMPOUND #200 (H)
ROLLERS -		
CRAWLER ROLLERS	POCO FIBRE GREASE #0	POCO FIBRE GREASE #00
ROTATING CIRCLE ROLLERS	POCO FIBRE GREASE #0	POCO FIBRE GREASE #00
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	POCO COMPOUND #10 (H)	POCO COMPOUND #10 (H)
VACUUM POWER CYLINDERS -	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	POCO JOURNAL EXTRA HEAVY	POCO JOURNAL HEAVY
NORMAL CONDITIONS	POCO COMPOUND #100 (H)	POCO COMPOUND #10 (H)

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(H) TO BE APPLIED HOT.

(M) ITEMS MARKED THUS ARE M.S.S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY
SHELL OIL CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	SHELL COMPRESSA 34	SHELL COMPRESSA 34
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	MAXIMUS NO. 2	MAXIMUS NO. 2
BALL OR ROLLER - OIL LUB.	ALBUS 34	ALBUS 34
SLEEVE - GREASE LUBRICATED	SHELL MAXIMUS NO. 2	SHELL MAXIMUS NO. 2
SLEEVE - OIL LUBRICATED	ALBUS OIL 34	ALBUS OIL 34
CHAINS - DRIVING		
ROLLER - OPEN	SHELL JAPONICA OIL 79	SHELL JAPONICA OIL 79
ROLLER - ENCLOSED	SHELL ALBUS OIL 34	SHELL ALBUS OIL 34
SILENT - PARTLY ENCLOSED	SHELL ALBUS OIL 34	SHELL ALBUS OIL 34
SILENT - ENCLOSED	SHELL ALBUS OIL 34	SHELL ALBUS OIL 34
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	SHELL WOLCO 79J	SHELL WOLCO 79J
"FALK" OR SPRING TYPE - GREASE LUB.	SHELL MAXIMUS NO. 2	SHELL MAXIMUS NO. 2
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	SHELL MAXIMUS NO. 2	SHELL MAXIMUS NO. 2
BALL OR ROLLER - OIL LUB.	SHELL ALBUS 34	SHELL ALBUS 34
SLEEVE - RING, DRIP OR WICK OIL	SHELL ALBUS 34	SHELL ALBUS 34
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	SHELL WOLCO OIL 79J	SHELL WOLCO OIL 79J
ENCLOSED, OIL BATH, OTHER DUTY	SHELL WOLCO OIL 79J	SHELL WOLCO OIL 79J
OPEN OR PARTLY ENCLOSED	SHELL CARDIUM COMP. #20	SHELL CARDIUM COMP. #20
PROPEL - ENCLOSED - OIL BATH	SHELL WOLCO OIL 79J	SHELL WOLCO OIL 79J
WORM - OPEN	CARDIUM COMP #20	SHELL JAPONICA OIL 79
WORM - ENCLOSED - OIL BATH	SHELL WOLCO OIL 79J	SHELL WOLCO OIL 79J
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	SHELL LATUS 27	SHELL LATUS 27
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	SHELL ALBUS OIL 34	SHELL ALBUS OIL 34
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	SHELL JAPONICA OIL 79	SHELL JAPONICA OIL 79
NORMAL CONDITIONS	SHELL CARDIUM COMP. NO. 20	SHELL CARDIUM COMP. NO. 20
ROLLERS -		
CRAWLER ROLLERS	SHELL MAXIMUS #2	SHELL MAXIMUS #2
ROTATING CIRCLE ROLLERS	SHELL MAXIMUS #2	SHELL MAXIMUS #2
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	MAXIMUS NO. 2	MAXIMUS NO. 2
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	SHELL JAPONICA OIL 79	SHELL JAPONICA OIL 79
NORMAL CONDITIONS	SHELL CARDIUM COMP. NO. 20	SHELL CARDIUM COMP. NO. 20

* "G.E. GREASE FOR BALL BEARING MOTORS" ALSO RECOMMENDED FOR G. E. CO'S. MOTORS AND GENERATORS.

** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

SINCLAIR REFINING CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	RUBILENE OIL MEDIUM	RUBILENE OIL MEDIUM
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	BEARING GREASE AF No. 1	BEARING GREASE AF No. 1
BALL OR ROLLER - OIL LUB.	RUBILENE OIL MEDIUM	RUBILENE OIL MEDIUM
SLEEVE - GREASE LUBRICATED	BEARING GREASE AF No. 1	BEARING GREASE AF No. 1
SLEEVE - OIL LUBRICATED	RUBILENE OIL MEDIUM	RUBILENE OIL MEDIUM
CHAINS - DRIVING		
ROLLER - OPEN	JET BEARING OIL "S"	JET BEARING OIL "W"
ROLLER - ENCLOSED	RUBILENE OIL MEDIUM	RUBILENE OIL MEDIUM
SILENT - PARTLY ENCLOSED	JET BEARING OIL "S"	JET BEARING OIL "W"
SILENT - ENCLOSED	RUBILENE OIL MEDIUM	RUBILENE OIL MEDIUM
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	VALVE OIL LIGHT MINERAL	VALVE OIL LIGHT MINERAL
"FALK" OR SPRING TYPE - GREASE LUB.	SINCOLUBE No. 3	SINCOLUBE No. 3
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	BEARING GREASE AF No. 1	BEARING GREASE AF No. 1
BALL OR ROLLER - OIL LUB.	RUBILENE OIL MEDIUM	RUBILENE OIL MEDIUM
SLEEVE - RING, DRIP OR WICK OIL	SALINE OIL	SALINE OIL
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	OPALINE GEAR LUBRICANT "W"	OPALINE GEAR LUBRICANT "W"
ENCLOSED, OIL BATH, OTHER DUTY	RUBILENE OIL HEAVY	RUBILENE OIL HEAVY
OPEN OR PARTLY ENCLOSED	ONYX LUBRICANT H (H)	ONYX LUBRICANT 500 (H)
PROPEL - ENCLOSED - OIL BATH	JET BEARING OIL "S"	JET BEARING OIL "W"
WORM - OPEN	ONYX LUBRICANT H (H)	ONYX LUBRICANT 500 (H)
WORM - ENCLOSED - OIL BATH	MODOC CYL. OIL DARK MINERAL	MODOC CYL. OIL DARK MINERAL
HYDRAULIC EQUALIZING JACKS		
AUTOMATICALLY OPERATED	ICE MACHINE OIL LIGHT	ICE MACHINE OIL LIGHT
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL Co., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	PENNSYLVANIA MOTOR OIL LIGHT	PENNSYLVANIA MOTOR OIL LIGHT
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	SINCOLUBE No. 3	SINCOLUBE No. 3
NORMAL CONDITIONS	ONYX LUBRICANT H (H)	ONYX LUBRICANT 500 (H)
ROLLERS -		
CRAWLER ROLLERS	BEARING GREASE AF No. 1	BEARING GREASE AF No. 1
ROTATING CIRCLE ROLLERS	BEARING GREASE AF No. 1	BEARING GREASE AF No. 1
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	ONYX LUBRICANT H (H)	ONYX LUBRICANT 500 (H)
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	ONYX LUBRICANT H (H)	ONYX LUBRICANT 500 (H)
NORMAL CONDITIONS	ONYX LUBRICANT H (H)	ONYX LUBRICANT 500 (H)

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL Co.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(H) TO BE APPLIED HOT.

(M) ITEMS MARKED THUS ARE M. S. S. Co's. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

SOCONY-VACUUM OIL CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY MEDIUM
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	BRB No. 3	BRB No. 3
BALL OR ROLLER - OIL LUB.	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY MEDIUM
SLEEVE - GREASE LUBRICATED	KALREX No. 2	KALREX No. 2
SLEEVE - OIL LUBRICATED	VISCOLITE EXTRA HEAVY	VISCOLITE EXTRA HEAVY
CHAINS - DRIVING		
ROLLER - OPEN	VISCOLITE OIL EXTRA HEAVY	VISCOLITE OIL EXTRA HEAVY
ROLLER - ENCLOSED	DTE OIL EXTRA HEAVY	DTE OIL EXTRA HEAVY
SILENT - PARTLY ENCLOSED	MOBILEGREASE No. 2	MOBILEGREASE No. 2
SILENT - ENCLOSED	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY MEDIUM
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	CYLINDER OIL 600 W	CYLINDER OIL 600 W
"FALK" OR SPRING TYPE - GREASE LUB.	KALREX GREASE No. 2	KALREX GREASE No. 2
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	BRB No. 3	BRB No. 3
BALL OR ROLLER - OIL LUB.	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY MEDIUM
SLEEVE - RING, DRIP OR WICK OIL	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY MEDIUM
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	GG. COMPOUND No. 3	GG. COMPOUND No. 3
ENCLOSED, OIL BATH, OTHER DUTY	DTE OIL EXTRA HEAVY	DTE OIL EXTRA HEAVY
OPEN OR PARTLY ENCLOSED	VISCOLITE No. 20 FLUID (C)	VISCOLITE No. 20 FLUID (C)
PROPEL - ENCLOSED - OIL BATH	COMPOUND No. 3	COMPOUND No. 3
WORM - OPEN	VISCOLITE No. 20 FLUID (C)	VISCOLITE No. 20 FLUID (C)
WORM - ENCLOSED - OIL BATH	CYLINDER OIL 600 W	CYLINDER OIL 600 W
HYDRAULIC EQUALIZING JACKS		
AUTOMATICALLY OPERATED	MOBILOIL ARCTIC SPEC.	MOBILOIL ARCTIC SPEC.
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY MEDIUM
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	VISCOLITE No. 20 FLUID (C)	VISCOLITE No. 20 FLUID (C)
NORMAL CONDITIONS	VISCOLITE No. 20 FLUID (C)	VISCOLITE No. 20 FLUID (C)
ROLLERS -		
CRAWLER ROLLERS	KALREX GREASE No. 2	KALREX GREASE No. 2
ROTATING CIRCLE ROLLERS	KALREX GREASE No. 2	KALREX GREASE No. 2
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	VISCOLITE No. 20 FLUID (C)	VISCOLITE No. 20 FLUID (C)
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	VISCOLITE OIL EXTRA HEAVY	VISCOLITE OIL EXTRA HEAVY
NORMAL CONDITIONS	VISCOLITE OIL EXTRA HEAVY	VISCOLITE OIL EXTRA HEAVY

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*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

(C) TO BE APPLIED COLD AND ALLOWED TO DRY.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

STANDARD OIL COMPANY OF CALIFORNIA

(CALIFORNIA COMMERCIAL CO., INC.)

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	CALOL COMPRESSOR OIL 19	CALOL COMPRESSOR OIL 19
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	CALOL H.M.P. GREASE 2	CALOL H.M.P. GREASE 2
BALL OR ROLLER - OIL LUB.	CALOL RED ENGINE OIL 20	CALOL RED ENGINE OIL 20
SLEEVE - GREASE LUBRICATED	CALOL GREASE 2	CALOL GREASE 2
SLEEVE - OIL LUBRICATED	CALOL RED ENGINE OIL 20	CALOL RED ENGINE OIL 20
CHAINS - DRIVING		
ROLLER - OPEN	CALOL JOURNAL OIL 25	CALOL JOURNAL OIL 25
ROLLER - ENCLOSED	CALOL RED ENGINE OIL 20	CALOL RED ENGINE OIL 20
SILENT - PARTLY ENCLOSED	CALOL JOURNAL OIL 25	CALOL JOURANL OIL 25
SILENT - ENCLOSED	CALOL RED ENGINE OIL 20	CALOL RED ENGINE OIL 20
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	CALOL CYLINDER OIL 140 PX	CALOL CYLINDER OIL 140 PX
"FALK" OR SPRING TYPE - GREASE LUB.	CALOL MULTI-SERVICE GREASE 2	CALOL MULTI-SERVICE GREASE 2
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	CALOL H.M.P. GREASE 1	CALOL H.M.P. GREASE 1
BALL OR ROLLER - OIL LUB.	CALOL TURBINE OIL 15	CALOL TURBINE OIL 11
SLEEVE - RING, DRIP OR WICK OIL	CALOL TURBINE OIL 15	CALOL TURBINE OIL 11
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	CALOL CYLINDER OIL 140 PX	CALOL DIESEL ENGINE OIL 65
ENCLOSED, OIL BATH, OTHER DUTY	CALOL CYLINDER OIL 140 PX	CALOL DIESEL ENGINE OIL 65
OPEN OR PARTLY ENCLOSED	CALOL PINION GREASE 2	CALOL PINION GREASE 1
PROPEL - ENCLOSED - OIL BATH	CALOL CYLINDER OIL 140 PX	CALOL DIESEL ENGINE OIL 65
WORM - OPEN	CALOL PINION GREASE 0	CALOL PINION GREASE 0
WORM - ENCLOSED - OIL BATH	CALOL CYLINDER OIL 140 PX	CALOL CYLINDER OIL 140 PX
HYDRAULIC EQUALIZING JACKS		
AUTOMATICALLY OPERATED	CALOL ENGINE OIL NO. 8	CALOL ENGINE OIL NO. 8
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	CALOL TURBINE OIL 15	CALOL TURBINE OIL 11
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	CALOL H.M.P. GREASE 2	CALOL H.M.P. GREASE 2
NORMAL CONDITIONS	CALOL PINION GREASE 1	CALOL PINION GREASE 1
ROLLERS -		
CRAWLER ROLLERS	CALOL GREASE 2	CALOL GREASE 2
ROTATING CIRCLE ROLLERS	CALOL GREASE 2	CALOL GREASE 2
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	CALOL JOURNAL OIL 25	CALOL JOURNAL OIL 25
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	CALOL WIRE ROPE LUBRICANT	CALOL WIRE ROPE LUBRICANT
NORMAL CONDITIONS	CALOL WIRE ROPE LUBRICANT	CALOL WIRE ROPE LUBRICANT

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*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

STANDARD OIL CO. (INDIANA)

NAME OF PART	SUMMER (ABOVE 32°)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	ISO-VIS MOTOR OIL No. 20	ISO-VIS MOTOR OIL No. 20
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	STANOBAR GREASE No. 2	STANOBAR GREASE S
BALL OR ROLLER - OIL LUB.	INDOIL No. 31	INDOIL No. 15
SLEEVE - GREASE LUBRICATED	SUPERLA GREASE No. 57	SUPERLA GREASE No. 42
SLEEVE - OIL LUBRICATED	INDOIL No. 31	INDOIL No. 15
CHAINS - DRIVING		
ROLLER - OPEN	SUMMER BLACK OIL	WINTER BLACK OIL
ROLLER - ENCLOSED	INDOIL No. 31	INDOIL No. 15
SILENT - PARTLY ENCLOSED	INDOIL No. 31	INDOIL No. 15
SILENT - ENCLOSED	INDOIL No. 31	INDOIL No. 15
COUPLINGS		
"FAST" OR GEAR TYPE - OIL LUB.	CALUMET VISCOUS LUB. No. 2X	CALUMET VISCOUS LUB. No. 2X
"FALK" OR SPRING TYPE - GREASE LUB.	STD. WHEEL BRG. GREASE MEDIUM	STD. WHEEL BRG. GREASE MEDIUM
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	STANOBAR GREASE No. 2	STANOBAR GREASE S
BALL OR ROLLER - OIL LUB.	INDOIL No. 31	INDOIL No. 15
SLEEVE - RING, DRIP OR WICK OIL	INDOIL No. 31	INDOIL No. 15
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	STANO GEAR LEADED LUB. No. 6X	STANO GEAR LEADED LUB. No. 3X
ENCLOSED, OIL BATH, OTHER DUTY	STANDARD GEAR LUB. No. 140	STANDARD GEAR LUB. No. 90
OPEN OR PARTLY ENCLOSED	CALUMET VISCOUS LUB. # 10X	CALUMET VISCOUS LUB. # 8X
PROPEL - ENCLOSED - OIL BATH	STANDARD GEAR LUB. No. 140	STANDARD GEAR LUB. No. 90
WORM - OPEN	CALUMET VISCOUS LUB. # 10X	CALUMET VISCOUS LUB. # 8X
WORM - ENCLOSED - OIL BATH	CAPITOL CYLINDER OIL	STANDARD GEAR LUB. # 90
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	STANOIL No. 15 OR STANOLIND ICE MACHINE OIL MEDIUM	
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	INDOIL No. 31	STANOLIND ICE MACHINE OIL MED.
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	STANDARD GEAR GREASE	STANDARD GEAR GREASE
NORMAL CONDITIONS	CALUMET VISCOUS LUB. # 10X	CALUMET VISCOUS LUB. # 8X
ROLLERS -		
CRAWLER ROLLERS	SUPERLA GREASE No. 57	SUPERLA GREASE No. 42
ROTATING CIRCLE ROLLERS	SUPERLA GREASE No. 57	SUPERLA GREASE No. 42
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	CALUMET VISCOUS LUB. # 5X	CALUMET VISCOUS LUB. #2X
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	SUMMER BLACK OIL	WINTER BLACK OIL
NORMAL CONDITIONS	CALUMET VISCOUS LUB. #5X	CALUMET VISCOUS LUB. #2X

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

STANDARD OIL CO. OF NEW JERSEY (AND AFFILIATED COMPANIES)

STANDARD OIL CO. OF PENNSYLVANIA — COLONIAL BEACON OIL CO.
STANDARD OIL CO. OF LOUISIANA — ESSO MARKETERS

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	TERESSO - #52	TERESSO - #52
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	ANDOK LUB. M-275	ANDOK LUB. M-275
BALL OR ROLLER - OIL LUB.	TERESSO - #52	TERESSO - #43
SLEEVE - GREASE LUBRICATED	CASTROLEUM - 1	CASTROLEUM - 1
SLEEVE - OIL LUBRICATED	ROXTONE - 60	ROXTONE - 50
CHAINS - DRIVING		
ROLLER - OPEN	ROXTONE - 60	ROXTONE - 50
ROLLER - ENCLOSED	TERESSO - 65	TERESSO - 65
SILENT - PARTLY ENCLOSED	TERESSO - 65	TERESSO - 65
SILENT - ENCLOSED	TERESSO - 65	TERESSO - 65
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	CYLESSO - T-140	CYLESSO - T-140
"FALK" OR SPRING TYPE - GREASE LUB.	ESSOLEUM - C	ESSOLEUM - C
ENGINES - GASOLINE, OIL DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	ANDOK LUB. M-275	ANDOK LUB. M-275
BALL OR ROLLER - OIL LUB.	TERESSO - 52	TERESSO - 43
SLEEVE - RING, DRIP OR WICK OIL	TERESSO - 52	TERESSO - 43
OIL CIRCUIT BREAKER	(M)(USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M)(USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M)(USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	CYLESSO - T-140	PENOLA COMPOUND 3
ENCLOSED, OIL BATH, OTHER DUTY	TERESSO - 65	TERESSO - 65
OPEN OR PARTLY ENCLOSED	SURETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)
PROPEL - ENCLOSED - OIL BATH	CYLESSO - T-140	PENOLA COMPOUND 3
WORM - OPEN	SURRETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)
WORM - ENCLOSED - OIL BATH	CYLESSO - T-140	PENOLA COMPOUND 3
HYDRAULIC EQUALIZING JACKS		
AUTOMATICALLY OPERATED	UNIVIS 47	UNIVIS 47
** MANUALLY OPERATED	(M)(REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	TERESSO - 52	TERESSO - 43
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	TRADOX LUBRICANT 5	TRADOX LUBRICANT 5
NORMAL CONDITIONS	SURETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)
ROLLERS -		
CRAWLER ROLLERS	CASTROLEUM - 1	CASTROLEUM - 1
ROTATING CIRCLE ROLLERS	CASTROLEUM - 1	CASTROLEUM - 1
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M)(KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	ROXTONE - 60	ROXTONE - 50
VACUUM POWER CYLINDERS -	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	ROXTONE - 60	ROXTONE - 50
NORMAL CONDITIONS	SURETT COMPOUND 1500 (H)	SURETT COMPOUND 310 (H)

* "G. E. GREASE FOR BALL BEARING MOTORS" ALSO RECOMMENDED FOR G. E. CO'S. MOTORS AND GENERATORS.

** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(H) TO BE APPLIED HOT.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

THE STANDARD OIL CO. (OHIO)

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR – CRANKCASE	SOHIO MOTOR OIL No. 20	SOHIO MOTOR OIL No. 20
AIR CONTROL –	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS – MECHANICAL EQUIPMENT		
BALL OR ROLLER – GREASE LUB.	SOHIO 42 GREASE	SOHIO 41 GREASE
BALL OR ROLLER – OIL LUB.	SOLAR RED OIL	POLAR MACHINE OIL MEDIUM
SLEEVE – GREASE LUBRICATED	SOHIO 42 GREASE	SOHIO 41 GREASE
SLEEVE – OIL LUBRICATED	SOLAR RED OIL	POLAR MACHINE OIL MEDIUM
CHAINS – DRIVING		
ROLLER – OPEN	SUMMER BLACK OIL	WINTER BLACK OIL
ROLLER – ENCLOSED	STANDARD TURBINE GEAR OIL	POLAR MACHINE OIL HEAVY
SILENT – PARTLY ENCLOSED	STANDARD TURBINE GEAR OIL	POLAR MACHINE OIL HEAVY
SILENT – ENCLOSED	SOLAR RED OIL	POLAR MACHINE OIL MEDIUM
COUPLINGS –		
"FAST" OR GEAR TYPE – OIL LUB.	SOHIO DE 85	SOHIO DE 85
"FALK" OR SPRING TYPE – GREASE LUB.	SOHIO 200-E GREASE	SOHIO 200-E GREASE
ENGINES – GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT –		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER – GREASE LUB.	SOHIO 82X GREASE	SOHIO 82X GREASE
BALL OR ROLLER – OIL LUB.	SOLAR RED OIL	POLAR MACHINE OIL MEDIUM
SLEEVE – RING, DRIP OR WICK OIL	SOLAR RED OIL	POLAR MACHINE OIL MEDIUM
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL No. 10-C)	
GEARS –		
ENCLOSED, OIL BATH, HEAVY DUTY	FACTOLUBE #3	FACTOLUBE #3
ENCLOSED, OIL BATH, OTHER DUTY	FACTOLUBE #3	FACTOLUBE #3
OPEN OR PARTLY ENCLOSED	VELVET LUBRICANT #2 (H)	VELVET LUBRICANT #1 (H)
PROPEL – ENCLOSED – OIL BATH	FACTOLUBE #3	FACTOLUBE #3
WORM – OPEN	VELVET LUBRICANT #2 (H)	VELVET LUBRICANT #1 (H)
WORM – ENCLOSED – OIL BATH	FACTOLUBE #3	FACTOLUBE #3
HYDRAULIC EQUALIZING JACKS		
AUTOMATICALLY OPERATED	SOHIO DE 43	SOHIO DE 43
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS –		
BRAKE AND CLUTCH RAM CYLINDERS	POLAR HYDRAULIC OIL MEDIUM	POLAR HYDRAULIC OIL MEDIUM
RACKING AND YOKE BLOCKS –		
DUSTY CONDITIONS	SUMMER BLACK OIL	WINTER BLACK OIL
NORMAL CONDITIONS	VELVET LUBRICANT #1	VELVET LUBRICANT #1
ROLLERS –		
CRAWLER ROLLERS	SOHIO 42 GREASE	SOHIO 41 GREASE
ROTATING CIRCLE ROLLERS	SOHIO 42 GREASE	SOHIO 41 GREASE
ROTATING ROLLER TRACK SURFACES –		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	DARK GEAR GREASE	DARK GEAR GREASE
VACUUM POWER CYLINDERS –	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES –		
DUSTY CONDITIONS	VELVET LUBRICANT #1 (H)	VELVET LUBRICANT #1 (H)
NORMAL CONDITIONS	VELVET LUBRICANT #1 (H)	VELVET LUBRICANT #1 (H)

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(H) TO BE APPLIED HOT.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

SUN OIL COMPANY

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	#843 ROLLER BR. GR.	#843 ROLLER BR. GR.
BALL OR ROLLER - OIL LUB.	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
SLEEVE - GREASE LUBRICATED	#301 H.D. GUN GR.	#301 H.D. GUN GR.
SLEEVE - OIL LUBRICATED	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
CHAINS - DRIVING		
ROLLER - OPEN	UTILITY OIL HEAVY	UTILITY OIL HEAVY
ROLLER - ENCLOSED	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
SILENT - PARTLY ENCLOSED	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
SILENT - ENCLOSED	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	OCCIDENT CYLINDER	OCCIDENT CYLINDER
"FALK" OR SPRING TYPE - GREASE LUB.	#843 ROLLER BR. GR.	#843 ROLLER BR. GR.
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	#843 ROLLER BR. GR.	#843 ROLLER BR. GR.
BALL OR ROLLER - OIL LUB.	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
SLEEVE - RING, DRIP OR WICK OIL	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	E.P. 140	E.P. 90
ENCLOSED, OIL BATH, OTHER DUTY	E.P. 90	E.P. 90
OPEN OR PARTLY ENCLOSED	GEAR COMPOUND C	GEAR COMPOUND C
PROPEL - ENCLOSED - OIL BATH	SOLNUS HEAVY MEDIUM	SOLNUS HEAVY MEDIUM
WORM - OPEN	GEAR COMPOUND C	GEAR COMPOUND C
WORM - ENCLOSED - OIL BATH	OCCIDENT CYLINDER	OCCIDENT CYLINDER
HYDRAULIC EQUALIZING JACKS		
AUTOMATICALLY OPERATED	SOLNUS LIGHT OIL	SOLNUS LIGHT OIL
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	SOLNUS MEDIUM	SOLNUS MEDIUM
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	UTILITY OIL HEAVY	UTILITY OIL HEAVY
NORMAL CONDITIONS	GEAR COMPOUND C	GEAR COMPOUND C
ROLLERS -		
CRAWLER ROLLERS	#301 H.D. GUN GR.	#301 H.D. GUN GR.
ROTATING CIRCLE ROLLERS	#301 H.D. GUN GR.	#301 H.D. GUN GR.
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	GEAR COMPOUND C	GEAR COMPOUND C
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	UTILITY OIL HEAVY	UTILITY OIL HEAVY
NORMAL CONDITIONS	GEAR COMPOUND C	GEAR COMPOUND C

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL CO.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

THE TEXAS COMPANY

(ALSO THE INDIAN REFINING CO.)

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	ALCAID OIL	ALCAID OIL
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	MARFAK No. 1	MARFAK No. 0
BALL OR ROLLER - OIL LUB.	ALGOL OIL	ALCAID OIL
SLEEVE - GREASE LUBRICATED	MARFAK No. 1	MARFAK No. 1
SLEEVE - OIL LUBRICATED	ALGOL OIL	ALCAID OIL
CHAINS - DRIVING		
ROLLER - OPEN	CRATER No. 1	CRATER No. 00
ROLLER - ENCLOSED	ALGOL OIL	ALCAID OIL
SILENT - PARTLY ENCLOSED	ALGOL OIL	ALCAID OIL
SILENT - ENCLOSED	ALGOL OIL	ALCAID OIL
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.-	CRATER 1-X	CRATER 1-X
"FALK" OR SPRING TYPE - GREASE LUB.	MARFAK No. 3	MARFAK No. 3
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	MARFAK No. 1	MARFAK No. 0
BALL OR ROLLER - OIL LUB.	ALGOL OIL	ALCAID OIL
SLEEVE - RING, DRIP OR WICK OIL	ALGOL OIL	ALCAID OIL
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	UNIVERSAL GEAR OIL 140	UNIVERSAL GEAR OIL 90
ENCLOSED, OIL BATH, OTHER DUTY	URSA OIL	ALGOL OIL
OPEN OR PARTLY ENCLOSED	CRATER No. 2	CRATER No. 1
PROPEL - ENCLOSED - OIL BATH	CRATER No. 1	CRATER No. 00
WORM - OPEN	CRATER No. 1	CRATER No. 00
WORM - ENCLOSED - OIL BATH	UNIVERSAL GEAR OIL 140	UNIVERSAL GEAR OIL 90
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	CAPELLA OIL	CAPELLA OIL
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL Co., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	CETUS OIL	CAPELLA OIL
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	CRATER No. 1	CRATER No. 00
NORMAL CONDITIONS	CRATER No. 1	CRATER No. 00
ROLLERS -		
CRAWLER ROLLERS	MARFAK No. 1	MARFAK No. 0
ROTATING CIRCLE ROLLERS	MARFAK No. 1	MARFAK No. 0
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	CRATER No. 1	CRATER No. 1
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	CRATER No. 1	CRATER No. 00
NORMAL CONDITIONS	CRATER No. 1	CRATER No. 00

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*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. Co's. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

TIDE WATER ASSOCIATED OIL CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	TYCOL HEAVY MEDIUM	TYCOL HEAVY MEDIUM
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	TYCOL GREASE #51	TYCOL GREASE #46
BALL OR ROLLER - OIL LUB.	TYCOL 112	TYCOL 102
SLEEVE - GREASE LUBRICATED	TYCOL GREASE #51	TYCOL GREASE #46
SLEEVE - OIL LUBRICATED	TYCOL 112	TYCOL 102
CHAINS - DRIVING		
ROLLER - OPEN	TYCOL 607	TYCOL 608
ROLLER - ENCLOSED	TYCOL 119	TYCOL 102
SILENT - PARTLY ENCLOSED	TYCOL 119	TYCOL 102
SILENT - ENCLOSED	TYCOL 119	TYCOL 102
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	TYCOL EA	TYCOL EA
"FALK" OR SPRING TYPE - GREASE LUB.	TYCOL GREASE #271	TYCOL GREASE #271
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	TYCOL GREASE #374	TYCOL GREASE #374
BALL OR ROLLER - OIL LUB.	TYCOL 112	TYCOL 312
SLEEVE - RING, DRIP OR WICK OIL	TYCOL 112	TYCOL 312
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC CO'S. TRANSIL OIL NO. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	TYCOL S.P. LUB. H	TYCOL S.P. LUB. M
ENCLOSED, OIL BATH, OTHER DUTY	TYCOL 406	TYCOL S.P. LUB. M
OPEN OR PARTLY ENCLOSED	TYCOL COMPOUND #930	TYCOL COMPOUND #920
PROPEL - ENCLOSED - OIL BATH	TYCOL 406	TYCOL S.P. LUB. M
WORM - OPEN	TYCOL COMPOUND #930	TYCOL COMPOUND #920
WORM - ENCLOSED - OIL BATH	TYCOL EA	TYCOL S.P. LUB. M
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	NO PRODUCT AVAILABLE	NO PRODUCT AVAILABLE
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL CO., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	TYCOL HEAVY MEDIUM	TYCOL TURBINE OIL LIGHT
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	TYCOL COMPOUND #940	TYCOL COMPOUND #930
NORMAL CONDITIONS	TYCOL COMPOUND #930	TYCOL COMPOUND #920
ROLLERS -		
CRAWLER ROLLERS	TYCOL GREASE #51	TYCOL GREASE #46
ROTATING CIRCLE ROLLERS	TYCOL GREASE #51	TYCOL GREASE #46
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	TYCOL COMPOUND #930	TYCOL COMPOUND #920
VACUUM POWER CYLINDERS -	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	TYCOL 607	TYCOL 608
NORMAL CONDITIONS	TYCOL 607	TYCOL 608

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*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(M) ITEMS MARKED THUS ARE M. S. S. CO'S. RECOMMENDATIONS.

OIL AND GREASE FOR "MARION" EQUIPMENT

RECOMMENDED BY

THE WHITMORE MANUFACTURING CO.

NAME OF PART	SUMMER (ABOVE 32° F.)	WINTER (BELOW 32° F.)
AIR COMPRESSOR - CRANKCASE	No. 33	No. 33
AIR CONTROL -	(M) (SEE SPECIAL INSTRUCTION SHEET IN REPAIR PARTS BOOK)	
BEARINGS - MECHANICAL EQUIPMENT		
BALL OR ROLLER - GREASE LUB.	SEE NOTE "B"	A.F.C. No. 3-W
BALL OR ROLLER - OIL LUB.	OIL RING LUB.	OIL RING LUB.
SLEEVE - GREASE LUBRICATED	SEE NOTE "B"	A.F.C. No. 3-W
SLEEVE - OIL LUBRICATED	OIL RING LUB.	OIL RING LUB.
CHAINS - DRIVING		
ROLLER - OPEN	SPRING COMP.	SPRING COMP.
ROLLER - ENCLOSED	No. 33	No. 33
SILENT - PARTLY ENCLOSED	No. 70	No. 70
SILENT - ENCLOSED	No. 33	No. 33
COUPLINGS -		
"FAST" OR GEAR TYPE - OIL LUB.	No. 65	No. 70
"FALK" OR SPRING TYPE - GREASE LUB.	R. & B.B.	R. & B.B.
ENGINES - GASOLINE, OIL OR DIESEL	(M) (SEE ENGINE MANUFACTURER'S INSTRUCTION BOOK)	
ELECTRICAL EQUIPMENT -		
BEARINGS FOR MOTORS AND GENERATORS		
* BALL OR ROLLER - GREASE LUB.	A.F.C. No. 3	A.F.C. No. 3-W
BALL OR ROLLER - OIL LUB.	OIL RING LUB.	OIL RING LUB.
SLEEVE - RING, DRIP OR WICK OIL	OIL RING LUB.	OIL RING LUB.
OIL CIRCUIT BREAKER	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
SLIP RING CASE	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 6)	
TRANSFORMERS	(M) (USE GENERAL ELECTRIC Co's. TRANSIL OIL No. 10-C)	
GEARS -		
ENCLOSED, OIL BATH, HEAVY DUTY	No. 0-R (SUPER E.P.)	No. 0-R (SUPER E.P.)
ENCLOSED, OIL BATH, OTHER DUTY	No. 39	No. 39
OPEN OR PARTLY ENCLOSED	OPEN GEAR "SUMMER" (BH)	OPEN GEAR "SUMMER" (BH)
PROPEL - ENCLOSED - OIL BATH	No. 70	No. 70
WORM - OPEN	OPEN GEAR "SUMMER" (BH)	OPEN GEAR "SUMMER" (BH)
WORM - ENCLOSED - OIL BATH	WORM GEAR No. 23	WORM GEAR No. 23
HYDRAULIC EQUALIZING JACKS -		
AUTOMATICALLY OPERATED	No. 0 D-21	No. 0 D-21
** MANUALLY OPERATED	(M) (REFER TO MARION STEAM SHOVEL Co., MARION, OHIO)	
HYDRAULIC OPERATING SYSTEMS -		
BRAKE AND CLUTCH RAM CYLINDERS	No. 0 D-21	No. 0 D-21
RACKING AND YOKE BLOCKS -		
DUSTY CONDITIONS	OPEN GEAR "SUMMER" (BH)	OPEN GEAR "SUMMER" (BH)
NORMAL CONDITIONS	OPEN GEAR "SUMMER" (BH)	OPEN GEAR "SUMMER" (BH)
ROLLERS -		
CRAWLER ROLLERS	A.F.C. No. 5	A.F.C. No. 3
ROTATING CIRCLE ROLLERS	A.F.C. No. 5	A.F.C. No. 3
ROTATING ROLLER TRACK SURFACES -		
TRACK FOR FIXED CONE ROLLERS	(M) (KEEP DRY AND CLEAN AT ALL TIMES)	
*** TRACK FOR FLOATING CIRCLE ROLLERS	(M) (SAE 30)	(M) (SAE 20)
*** TRACK FOR HOOK ROLLERS	OPEN GEAR "SUMMER" (BH)	OPEN GEAR "SUMMER" (BH)
VACUUM POWER CYLINDERS	(M) (USE BENDIX VACUUM CYLINDER OIL)	
WIRE ROPES -		
DUSTY CONDITIONS	WIRE ROPE DRESSING	WIRE ROPE DRESSING
NORMAL CONDITIONS	WIRE ROPE DRESSING	WIRE ROPE DRESSING

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** PROPER OIL DEPENDS ON TYPE OF PACKING AND CONDITION OF JACKS. CONSULT MARION STEAM SHOVEL Co.

*** LUBRICATE SPARINGLY AND CLEAN FREQUENTLY.

(BH) MUST ALWAYS BE APPLIED BOILING HOT. BRUSH ON.

(M) ITEMS MARKED THUS ARE M. S. S. Co's. RECOMMENDATIONS.

NOTE "B" - ABOVE 600 R.P.M. USE WHITMORE A.F.C. No. 3.
BELOW 600 R.P.M. USE WHITMORE A.F.C. No. 5.